



# Virginia Healthcare Workforce Briefs

Indicators from the Bureau of Economic Analysis  
Regional Economic Accounts

## Series 3: Income & Compensation

Series 3, Issue 26

March 2018

### Highlights

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- ◆ In addition to the new income and compensation estimates for Quarter 4 (Q4) 2017 from the Bureau of Economic Analysis (BEA), this report also includes revised estimates from Q1 2010 to Q3 2017.
- ◆ Total earnings in Virginia's Health Care & Social Assistance (HC&SA) sector grew by \$351 million to \$29.50 billion in Q4 2017. In 2017, total HC&SA earnings in Virginia's HC&SA sector increased by \$896 million.
- ◆ Total employee compensation in Virginia's HC&SA sector grew by \$325 million to \$26.86 billion in Q4 2017. Total HC&SA employee compensation in the state increased by \$782 million in 2017.
- ◆ HC&SA compensation per employee in Virginia increased by \$554 to \$61,537 in Q4 2017. In 2017, total HC&SA compensation per employee in the state increased by a total of \$1,466. This full-year gain represents a 12-month growth rate of 2.4%.

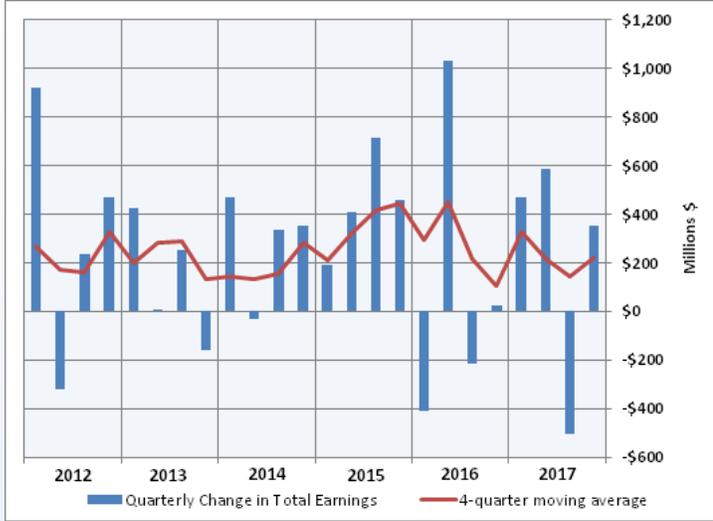
*The calendar year is the basis for data in this series. See Page 5 for additional information on this series.*

### Data in Brief

	Income (Millions of Dollars)				Growth Rate, Annualized		
	Q4 2016	Q2 2017	Q3 2017	Q4 2017	Annual	6-Month	Quarterly
<b>Earnings (Personal income less rents, interest, dividends and government payments)</b>							
<b>Virginia</b>	\$311,385	\$316,672	\$319,777	\$322,544	3.6%	3.7%	3.5%
<b>National</b>	\$11,351,515	\$11,609,414	\$11,723,290	\$11,847,261	4.4%	4.1%	4.3%
<b>Health Care &amp; Social Assistance Earnings</b>							
<b>Virginia</b>	\$28,602	\$29,654	\$29,147	\$29,498	3.1%	-1.0%	4.9%
<b>National</b>	\$1,277,247	\$1,314,122	\$1,322,566	\$1,335,479	4.6%	3.3%	4.0%
<b>Health Care &amp; Social Assistance Employee Compensation (Earnings less proprietor's income, includes salaries, wages &amp; benefits)</b>							
<b>Virginia</b>	\$26,081	\$27,075	\$26,538	\$26,863	3.0%	-1.6%	5.0%
<b>National</b>	\$1,146,587	\$1,180,533	\$1,187,403	\$1,198,920	4.6%	3.1%	3.9%
<b>Health Care &amp; Social Assistance Compensation per Employee (HWDC Estimate)</b>							
<b>Virginia</b>	\$60,071	\$62,251	\$60,984	\$61,537	2.4%	-2.3%	3.7%
<b>National</b>	\$59,377	\$60,598	\$60,725	\$60,834	2.5%	0.8%	0.7%

## Health Care & Social Assistance Earnings

**Figure 1: Quarterly Change in Total Earnings from Virginia’s Health Care & Social Assistance Sector. Includes proprietor’s income, salaries and wages, and benefits.**



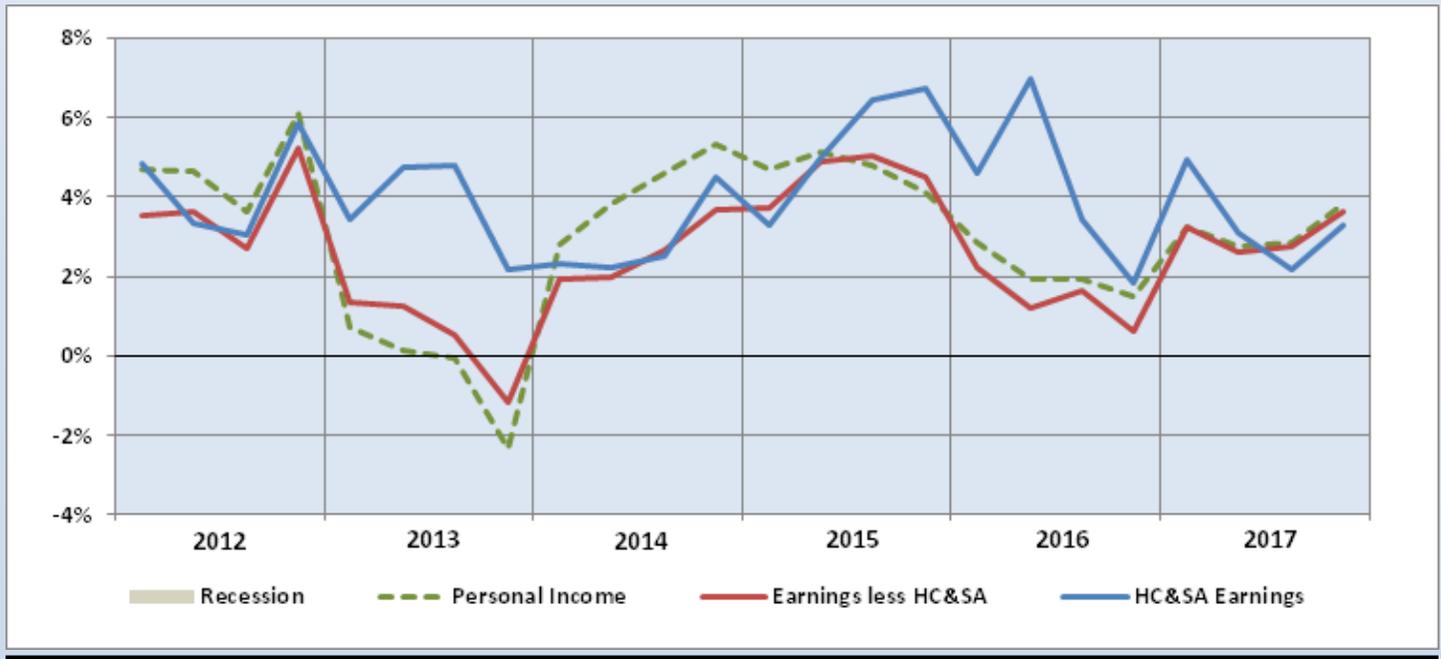
According to data released on Thursday, March 22, 2018 by the U.S. Bureau of Economic Analysis, total earnings in Virginia’s Health Care & Social Assistance (HC&SA) sector increased by \$351 million in Q4 2017 to \$29.49 billion. This gain represents a quarterly growth rate of 4.9%, which exceeds the nationwide HC&SA average of 4.0% in Q4 2017. Regardless, total HC&SA earnings in the state have fallen at a 1.0% annualized rate over the past six months because of a decline of \$507 million in Q3 2017.

In 2017, total earnings in Virginia’s HC&SA sector increased by \$896 million. This gain represents a 12-month growth rate of 3.1%. Despite this impressive growth, this result is below the nationwide HC&SA average in 2017. Total HC&SA earnings across the nation grew by 4.6% in 2017. On the other hand, this year’s total gain far exceeds the full-year increase of \$427 million in 2016.

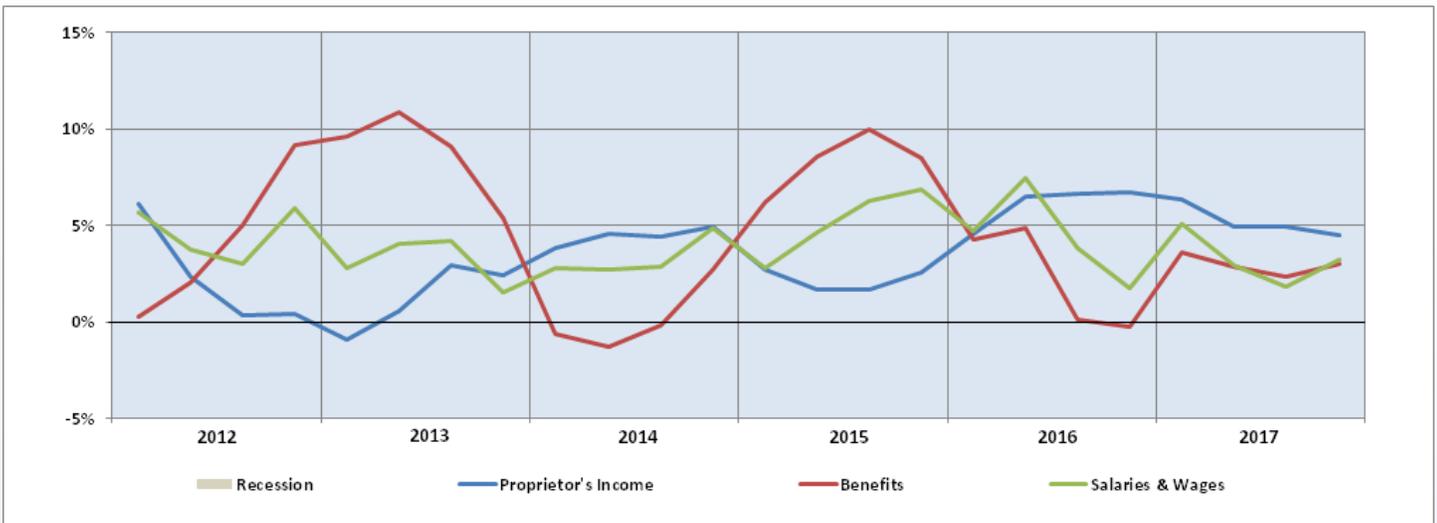
### Virginia HC&SA Earnings Growth Rate

In Q4 2017, the four-quarter moving average of the growth rate in Virginia’s total HC&SA earnings increased from 2.16% to 3.31%, thereby reaching its highest value since Q1 2017. Although this moving average has been trending downward since reaching a seven-and-a-half year high of 6.96% in Q2 2016, its more recent performance suggests that growth in Virginia’s total HC&SA earnings is starting to improve. For instance, this moving average has nearly doubled from 1.84% in Q4 2016. At the same time, the four-quarter moving average of the growth rate in Virginia’s non-HC&SA earnings also increased from 2.76% to a two-year high of 3.64%. Meanwhile, the four-quarter moving average of the growth rate in Virginia’s personal income also increased in Q4 2017 from 2.86% to 3.79%. This result also represents a two-year high for the four-quarter moving average of the growth rate in Virginia’s personal income.

**Figure 2: Earnings Growth Rate, 4-Quarter Moving Average (Annualized)**



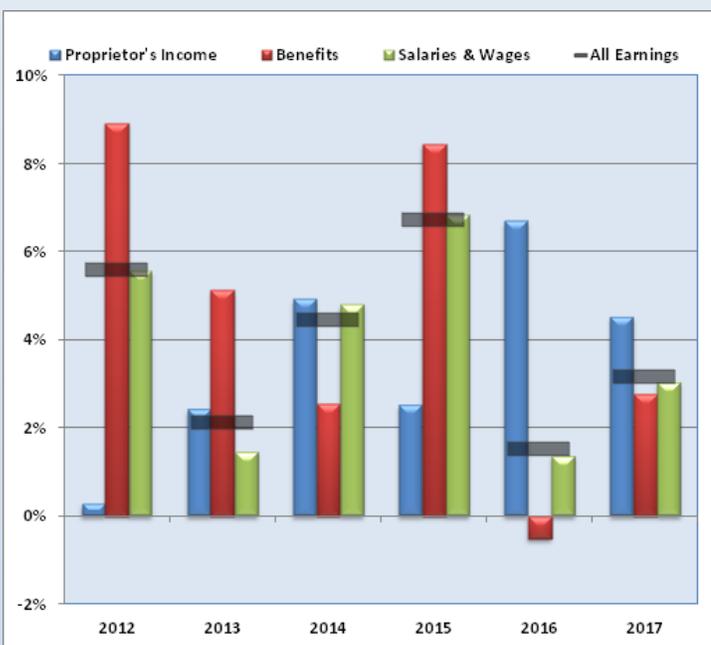
### Virginia HC&SA Earnings Growth Rate by Earnings Type



**Figure 3: Earnings Growth Rate by Type of Earnings, 4-Quarter Moving Average (Annualized)**

Throughout 2017, Virginia’s HC&SA earnings growth has been driven by the growth in HC&SA proprietor’s income, and this trend continued unabated in Q4 2017. However, the four-quarter moving average of the growth rate in HC&SA proprietor’s income fell from 4.96% to 4.53%. This result represents a two-year low for the four-quarter moving average of the growth rate in HC&SA proprietor’s income. On the other hand, the four-quarter moving average of the growth rate in HC&SA salaries & wages increased dramatically in Q4 2017 from 1.83% to 3.26%. At the same time, there was also an increase in the four-quarter moving average of the growth rate in HC&SA employee benefits from 2.32% to 2.98%. In the year-ago quarter, the moving averages for both forms of HC&SA employee compensation were 1.76% to -0.22%, respectively.

### Annual Growth by Earnings Type



**Figure 4: Virginia HC&SA Earnings Growth Rate by Type of Earnings (Annualized)**

In three of the past four years, HC&SA proprietor’s income has been the most significant driver of HC&SA earnings growth in the state. This was the case in 2017 as HC&SA proprietor’s income grew by 4.5% during the year. However, this result is below the 6.7% growth rate in HC&SA proprietor’s income in 2016, a figure that represented a five-year high for this form of HC&SA compensation.

Meanwhile, both forms of HC&SA employee compensation experienced significant increases in their full-year growth rates in 2017. The growth rate in HC&SA salaries & wages more than doubled in 2017 from 1.4% to 3.0%. The improvement in HC&SA employee benefits was even more impressive even if its growth rate still lags behind both HC&SA proprietor’s income and employee salaries & wages. In 2017, its full-year growth rate increased from -0.5% to 2.7%.

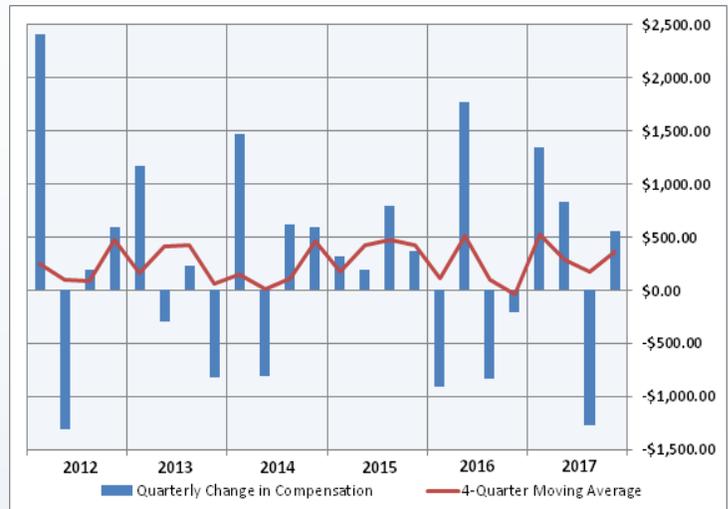
Earnings Type	Level (Millions)	Share
Proprietor's Income	\$2,635	8.9%
Benefits	\$4,525	15.3%
Salaries & Wages	\$22,338	75.7%
<b>Total</b>	<b>\$29,498</b>	<b>100%</b>

### HC&SA Compensation per Employee

According to the Healthcare Workforce Data Center’s estimates (see methodology, next page), employees in Virginia’s HC&SA sector earned an average of \$61,537 (annualized) in Q4 2017. Note this figure includes salaries & wages plus the cost of benefits for employed persons only. Practitioners in private practice, which includes a large number of the sector’s highly paid professionals, are not included in this figure.

In Q4 2017, Virginia’s total HC&SA compensation per employee increased by \$554, a gain that represents a three-month annualized growth rate of 3.7%. Although this did not fully compensate for the decline of \$1,267 during the previous quarter, the state’s total HC&SA compensation per employee still increased by a total of \$1,466 in 2017. This full-year gain represents a marked improvement relative to 2016 when total HC&SA compensation per employee in Virginia declined in three of its four quarters. In fact, total HC&SA compensation per employee fell by \$171 in 2016.

**Figure 5: Quarterly Change in Employee Compensation from Virginia’s Health Care & Social Assistance Sector.**

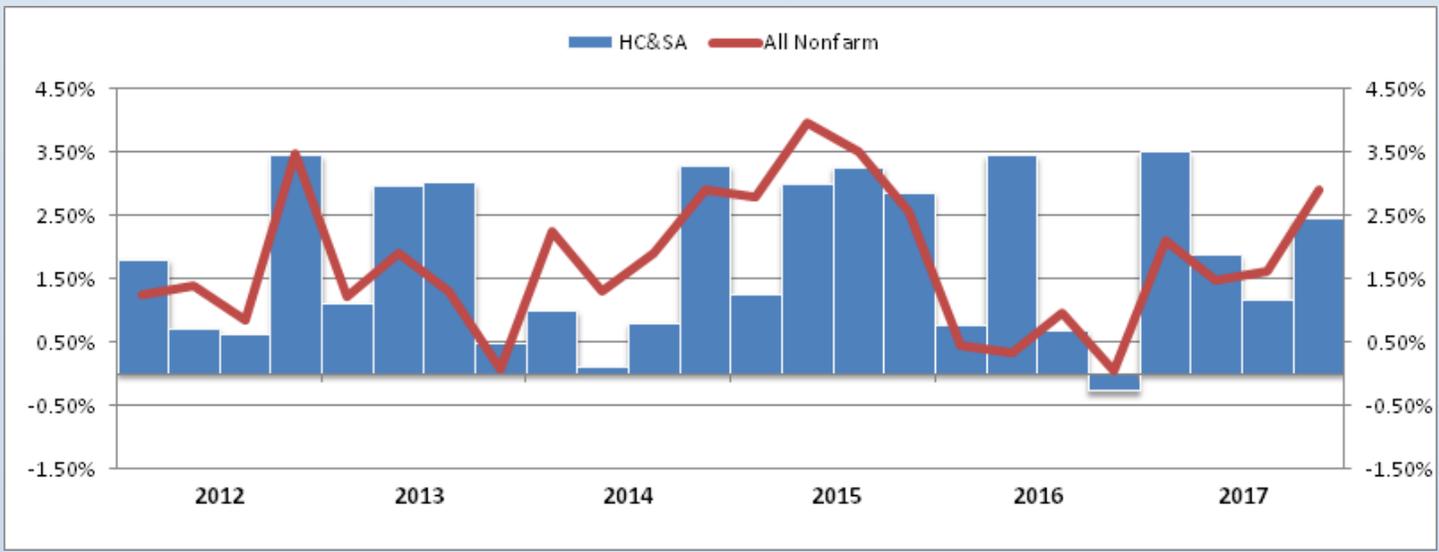


	Q4 2014	Q4 2015	Q4 2016	Q4 2017
Compensation per Employee	\$58,566	\$60,243	\$60,071	\$61,537

### Compensation per Employee Growth Rate

The year-over-year growth rate in Virginia’s HC&SA compensation per employee more than doubled in Q4 2017 from 1.17% to 2.44%. This current growth rate represents a significant improvement relative to the year-ago quarter. In Q4 2016, the year-over-year growth rate in Virginia’s HC&SA compensation per employee was negative at -0.28%. Despite this improvement, however, the year-over-year growth rate in Virginia’s HC&SA compensation per employee remained below the comparable growth rate of Virginia’s total nonfarm payroll. The year-over-year growth rate in Virginia’s total nonfarm payroll increased from 1.63% to 2.90% during the quarter. At its current level, this represents the highest value for the year-over-year growth rate in Virginia’s total nonfarm payroll in more than two years.

**Figure 6: Year-Over-Year Change in Compensation Per Employee.**



## Definitions

Economic data in this briefing is from the US Bureau of Economic Analysis' Regional Economic Accounts. In particular, we use the Quarterly State Personal Income Accounts. The definitions provided here are written for a lay audience. More technical definitions and in-depth information on the Regional Economic Accounts are available on the BEA's website: <http://www.bea.gov/regional/about.cfm>.

**Personal Income:** Income received from all sources, including salaries & wages, benefits, business profits, rents, government payments or retirement and investment funds. Personal income is based on where recipients live.

**Earnings:** Earned income includes salaries & wages, benefits (aka supplements to wages and salaries) and proprietor's income. Earnings and its components are based on where recipients work.

**Proprietor's Income:** Income from small businesses (sole proprietorships & partnerships), corporate director's fees and tax-exempt cooperatives. It does NOT include dividends or interest received by non-financial businesses or rental income received by non-real estate businesses.

**Compensation:** Salaries & wages and benefits.

**Benefits:** Referred to as "supplements to wages and salaries by the BEA, benefits includes employer contributions to retirement funds, insurance (including health and life) and to government social insurance programs (e.g., unemployment insurance, Social Security, worker's compensation insurance, etc).

**Salaries & Wages:** Salaries, wages, commissions, bonuses and tips, before deductions, based on when payments are disbursed. The value of stock options are also included at the time the options are exercised.

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## Method of Estimating Compensation per Employee

The HWDC derives estimates of compensation per employee from two sources: 1) US Bureau of Economic Analysis' Regional Economic Accounts (REA), and, 2) the Current Establishment Survey (CES) administered jointly by the US Bureau of Labor Statistics and the US Census Bureau. These sources use different methodologies and different definitions. Although more vigorous estimates of employment are available, the HWDC uses these sources to provide the most timely indication of current trends possible at the state-industry level. The HWDC estimates are early indicators only.

To make the two data sources more comparable, the HWDC makes the following transformations:

**CES:** To obtain quarterly estimates of employment, monthly figures are averaged for the quarter. For nonfarm employment, we remove the latest available estimate of logging employment from the Quarterly Census of Employment and Wages, rounded to the nearest hundred, from nonfarm totals in the CES prior to averaging.

**REA:** From nonfarm compensation (or its components), we remove military earnings, agriculture, fishing and forestry earnings and an estimate of earnings from households. For household earnings estimates, we use the REA's Annual State Personal Income and Employment tables to develop current estimates of the proportion of "Other services, except public administration" compensation from employment in private households. We use the most recent data available for the current quarter. We apply this proportion to the current quarterly estimate of "Other services, except public administration".

Despite these transformations, the figures are not wholly comparable. The BEA makes additional adjustments to BLS data when creating its own, annual estimates of employment. Historical indicators are not adjusted by the HWDC, however adjustments made to REA or CES series are incorporated into historical data. For more information on employment data and the REA, see the BEA's *State Personal Income and Employment Methodology*, pages XI-1 to XI-11 & Table K.

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The Department of Health Professions Healthcare Workforce Data Center works to improve the data collection and measurement of Virginia's healthcare workforce through regular assessment of workforce supply and demand issues among the 80 professions and 350,000 practitioners licensed in Virginia by DHP.

The HWDC collects data on Virginia's licensed health professionals through surveys completed during the online license renewal and application process. Survey results and data may be accessed on our website: [www.dhp.virginia.gov/hwdc/](http://www.dhp.virginia.gov/hwdc/).

The HWDC also provides a series of Virginia Healthcare Workforce Briefs based on data collected by the US Department of Labor's Bureau of Labor Statistics and the US Department of Commerce' Bureau of Economic Analysis.

Virginia Healthcare Workforce Briefs:

Series 1: State & National Employment (Monthly)

Series 2: Virginia Regional Employment (Monthly)

Series 3: Income & Compensation (Quarterly)

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## About the Data

Data used in creating this report is from the US Department of Commerce' Bureau of Economic Analysis' Regional Economic Accounts. Unless otherwise noted, data is seasonally adjusted and annualized, and quarterly presentations are based on the calendar year. Data from recent quarters is preliminary and subject to revision in future releases from the BEA. Revisions will be reported in future editions of this series.

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